

DERWENT-ACC-NO: 1980-37437C

DERWENT-WEEK: 198021

COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Semiconductor capacitor with high  
dielectric constant - is prepd. from a dielectric ceramic  
comprising barium titanate, lanthanum oxide and  
zirconium oxide and contg. manganese oxide

PATENT-ASSIGNEE: NICHICON CAPACITOR LTD[NICJ]

PRIORITY-DATA: 1978JP-0123806 (October 6, 1978)

PATENT-FAMILY:

PUB-NO	PAGES	PUB-DATE	
LANGUAGE		MAIN-IPC	
JP 55050615 A		April 12, 1980	N/A
000	N/A		
JP 87030482 B		July 2, 1987	N/A
000	N/A		

INT-CL (IPC): C04B035/46, H01B003/12 , H01G004/12

ABSTRACTED-PUB-NO: JP 55050615A

BASIC-ABSTRACT:

The dielectric ceramic consists essentially of a ternary solid soln. and further contains 0.01-0.3 wt.% MnO. The solid soln. consists of 87.0-99.2 mol % BaTiO<sub>3</sub>, 0.3-3.0 mol % La<sub>2</sub>O<sub>3</sub> and 0.5-10 mol % ZrO<sub>2</sub>. The ceramic is reduced to form a ceramic semiconductor. It has a dielectric constant of 3000-16000 and high breakdown voltage.

In an example, BaTiO<sub>3</sub>, ZrO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub> powders are mixed with polyvinyl alcohol and pressed at 1000 Kg/cm<sup>2</sup> to form a disc.

The latter is sintered at 1300 degrees C for 2 hrs. to form a dielectric ceramic disc. The disc is heated at 800 degrees C for an hr. in a reducing atmosphere to form the semiconductor disc. Ag paste is coated on the disc, and the paste is sintered at 800 degrees C for 30 mins. in air to form the capacitor.

DERWENT-CLASS: L03

CPI-CODES: L02-G07D; L03-B03;